

Amendment to the Specification

Please add the following section immediately after the title and before the Field of the Invention:

**CROSS-REFERENCE TO RELATED APPLICATIONS**

This application is a continuation-in-part of U.S. Application No. 09/835,107, filed April 12, 2001, which claims the benefit of provisional U.S. Application No. 60/232,425, filed September, 14, 2000, and Canadian Application Nos. 2,335,109, filed February 23, 2001, and 2,305,036, filed April 12, 2000.

Please amend the specification at page 8, lines 12-15, as follows:

Figure Figures 2A and 2B shows show a concentration-dependant inhibition of  $^{125}\text{I}$ -SDF-1 binding to CXCR4 by SDF-1, obtained as described for the data shown in Figure Figures 2A and 2B, indicating the affinity of SDF-1 for the CXCR4 receptor.

Please amend the specification at page 8, lines 17-23, as follows:

Figure 2B 2C shows the CXCR4 receptor binding of SDF-1 and the SDF-1 peptide agonist analogs. SDF-1 and the indicated analogs (competing ligands, described in Examples) were added at the concentrations illustrated in the presence of 4 nM  $^{125}\text{I}$ -SDF-1. CEM cells were assessed for  $^{125}\text{I}$ -SDF-1 binding following 2 hr of incubation. The results are expressed as percentages of the maximal specific binding that was determined without competing ligand, and are the mean of three independent experiments.

Please amend the specification at page 19, lines 4-12, as follows:

In particular embodiments, a preferred range for therapeutically or prophylactically effective amounts of CXCR4 agonists may be 0.1 nM-0.1M, 0.1 nM-0.05M, 0.05 nM-15  $\mu\text{M}$  or 0.01 nM-10  $\mu\text{M}$ . It is to be noted that dosage values may vary with the severity of the condition to be alleviated. For any particular subject, specific dosage regimens may be adjusted over time according to the individual need and the professional judgement of the person administering or supervising the administration of the compositions. Dosage ranges set

forth herein are exemplary only and do not limit the dosage ranges that may be selected by medical practitioners.

Please amend the specification at page 53, lines 7-25, as follows:

The efficacy of SDF-1 and SDF-1 peptide analogs as CXCR4 agonists was demonstrated through CXCR4 receptor binding assays. A competitive dose response for binding to the SDF-1 receptor by native SDF-1 and the CXCR4 agonists against  $^{125}\text{I}$ -SDF-1 is shown in FIGS. 2A and 2B respectively Figures 2A, 2B, and 2C. A concentration-dependent inhibition of  $^{125}\text{I}$ -SDF-1 is illustrated in FIG. 2A Figures 2A and 2B, indicating the affinity of SDF-1 for the receptor. A Scatchard plot is illustrated, and the  $K_D$  was determined to be 26 nM. SDF-1 and the indicated analogs (competing ligands) were added at the concentrations illustrated in the presence of 4 nM  $^{125}\text{I}$ -SDF-1. CEM cells were assessed for  $^{125}\text{I}$ -SDF-1 binding following 2 hr of incubation. The results are expressed as percentages of the maximal specific binding that was determined without competing ligand, and are the mean of three independent experiments. The inhibition of  $^{125}\text{I}$ -SDF-1 by SDF-1 and the SDF-1 analogs is indicative of CXCR4 receptor binding. The compounds illustrated in the figure are as follows: SDF-1(1-14)-(G)<sub>4</sub>--SDF-1(55-67)-K20/E24-cyclic amide (CTCE0021), SDF-1 (1-14)-(G)<sub>4</sub>--SDF-1(55-67)-E24/K28-cyclic amide (CTCE0022), SDF-1 (1-9)<sub>2</sub>-C9/C9-cysteine dimer (CTCE9901), SDF-1(1-17) (CTCE9902), SDF-1 (1-8)<sub>2</sub>-lysine bridge dimer (CTCE9904) and SDF-1(1-14)-(G)<sub>4</sub>--SDF-1(55-67) amide (CTCE0017).